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OBJECTIVES: To evaluate whether infliximab, a modern off-label biologic, is cost-effective for treating sarcoid posterior uveitis compared to methotrexate and systemtic steroids. Sarcoid posterior uveitis is a progressive eye disease that can lead to blindness if untreated. Ophthalmologists have utilized infliximab, a TNF-alpha inhibitor, which reverses effects of uveitis. **METHODS:** A semi-Markov model followed patients' therapy from the onset of sarcoid posterior uveitis using the societal perspective. The lifetime model simulated health states that could lead to successful reversal of uveitis with standard or intensified treatment with systemic steroids, methotrexate, or infliximab. Probabilities, health utilities, and costs were included in the model based on findings from literature. Costs and effects were discounted at 3% ($US; 2010 values). We conducted univariate sensitivity analyses, threshold analyses, and a Bayesian multivariate probablistic sensitivity analysis using 10,000 Monte Carlo simulations. Results were interpretted from a predetermined willingness-to-pay of $50,000/QALY. **RESULTS:** In order of cost, base case results showed systemic steroids most affordable ($26,871; 14.58 QALYs), followed by methotrexate ($40,351; 15.92 QALYs), and then infliximab ($46,547; 15.04 QALYs). Methotrexate was cost-effective compared to steroids, with an incremental cost-effectiveness ratio of $10,053/QALY. Methotrexate dominated infliximab. Univariate sensitivity analyses suggested that the model was sensitive to the utility of a patient's successful recovery from uveitis (0.84 QALYs). If patients' health utility after successful recovery is below 0.750, then infliximab has a greater net benefit than methotrexate. The multivariate probabilistic sensitivity analysis showed that methotrexate dominated infliximab in 60% of the simulations. **CONCLUSIONS:** This cost-effectiveness analysis suggests that despite major advances in the use of biologics for treating sight-threatening sarcoid posterior uveitis, methotrexate remains a less expensive and more cost-effective strategy. Methotrexate should be adopted as the standard of care for treatment considering its incremental cost-effectiveness at a reasonable willingness-to-pay. Other therapeutic options, such as infliximab, may be considered for certain cases.

PSS23

PHARMACOECONOMIC ANALYSES OF PARTIALLY HYDROLYZED INFANT FORMULAS IN PREVENTION OF ATOPIC DERMATITIS: COMPARATIVE RESULTS FROM 5 EUROPEAN COUNTRIES

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OBJECTIVES: Pharmacoeconomic analyses (PEs) were performed in five European countries to determine costs, consequences and cost effectiveness of a partially hydrolysed 100% whey-based infant formula, manufactured by Nestlé S.A, Switzerland (PHF-W) in the prevention of atopic dermatitis (AD) in 'at risk' children when compared to standard cow's milk formula (SF) or extensively hydrolyzed formula (EHF). **METHODS:** The PEs were performed in France, Germany, Spain, Denmark and Switzerland, using decision-analytic models depicting AD treatment pathways, as well as resource utilisation and costs associated with the treatment of AD in healthy yet 'at risk' newborns who could not be exclusively breastfed. A time horizon of 12 months including 6 months of formula consumption was applied, with country-specific resource use and costs. In four settings, SF was the main comparator and the final outcome of the PEs was the incremental cost per avoided case (ICER) of AD when comparing subjects who used PHF-W versus SF. Given a lack in significant differences in efficacy between PHF-W and EHF, a cost-minimization approach was used in all settings to compare these formulas. Three perspectives were applied: the Ministry of Health (MOH), the family and society. **RESULTS:** The analyses of PHF-W vs. SF generated ICERs ranging from €801 to €1343 (MOH), from -€1796 to -€454 (family) and from -€995 to €719 (society). The costs of formula and time loss were the most important cost drivers. In the analyses of PHF-W versus EHF in prevention, PHF-W demonstrated savings ranging from €4-€120 million, or €1.3-€64 million for the MOH perspective. The robustness of the models and the direction of the results were confirmed by one-way and probabilistic sensitivity analyses. **CONCLUSIONS:** In five European countries, PHF-W appears to be the product best positioned in prevention at a reasonable cost when compared to SF and with important cost-savings versus EHF.

PSS24

COST-EFFECTIVENESS OF USTEKINUMAB VS ETANERCEPT FOR SEVERE PSORIASIS

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OBJECTIVES: To evaluate cost-effectiveness of ustekinumab vs etanercept for severe psoriasis in Russia. **METHODS:** Cost-effectiveness analysis was performed. The data about efficacy and safety of biologic agents was analyzed. Cost-effectiveness ratio (CER) was calculated for ustekinumab and etanercept. Pharmaceutical costs were taken into account only. Achievement of PASI 75 was a criterion of efficacy, data about it was extracted from 12 weeks comparative clinical trial. **RESULTS:** The efficacy of ustekinumab was higher than etanercept in a direct comparative trial (67.5 and 56.8% of patients achieved PASI 75 by week 12 respectively). Both biologic agents were generally well tolerated in most patients. Ustekinumab was a bit less costly than etanercept: 470.00 and 496.62 thousands rub (16.92 and 17.88 thousands $) for 12-weeks treatment respectively. Therefore CER was more favorable for ustekinumab than for etanercept: 696.30 thousands rub (25.06 thousands $) and 874.33 thousands rub ($31.47 thousands $) per patient with PASI 75 achieved respectively. **CONCLUSIONS:** Ustekinumab is a dominanting alternative to etanercept for patients with severe psoriasis in Russia.

PSS25

THE COST-EFFECTIVENESS OF OZURDEX® (DEXAMETHASONE INTRAVITREAL IMPLANT IN APPLICATOR) COMPARED WITH OBSERVATION FOR THE TREATMENT OF MACULAR OEDEMA FOLLOWING CENTRAL AND BRANCH RETINAL VEIN OCCLUSION

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OBJECTIVES: Ozurdex (dexamethasone 700 μg intravitreal implant in applicator) was the first EMA licensed pharmacotherapy for macular oedema following central and branch retinal vein occlusion (CRVO, BRVO), a leading cause of vision loss. The objective of this analysis was to evaluate the cost-effectiveness of Ozurdex compared with a strategy of observation for the treatment of macular oedema (ME) following CRVO, and for BRVO patients with macular haemorrhage (BRVO-MH) or who have failed prior laser treatment (BRVO-PL). The analysis was performed from a UK NHS perspective. **METHODS:** A cost-utility model was developed to estimate the lifetime costs and effects of Ozurdex compared with observation in patients with CRVO, BRVO-MH and BRVO-PL based on the GENEVA 008 and GENEVA 009 studies. Patients in the model could move between six BCVA defined health states (best corrected visual acuity) based on the number of letters read correctly on the Early Treatment of Diabetic Retinopathy Study (ETDRS) chart. Cost data were obtained from literature and NHS reference costs. Utility values ranged between 0.599 and 0.862 and were derived from a preference-based scoring algorithm, the Visual Function Questionnaire Utility Index (VFQ-UI), valued by members of the general population using time-trade off (TTO). **RESULTS:** Ozurdex was shown to be cost-effective relative to observation with ICERs of £16,522, £17,741 and £6,361 for patients with CRVO, BRVO-MH and BRVO-PL respectively. One-way sensitivity analysis demonstrated that the proportion of patients affected in the baseline defined worse-seeing eye was a key driver of cost-effectiveness. Probabilistic sensitivity analysis demonstrated that at a threshold of £30,000, Ozurdex was a cost effective option in 85.2% of simulations for CRVO, 82.1% of simulations for BRVO-MH and 98.2% of simulations for BRVO-PL. **CONCLUSIONS:** Ozurdex is a cost-effective treatment option from a UK NHS perspective for macular oedema secondary to CRVO, BRVO-MH and BRVO-PL.

PSS26

THE USE OF A MIXED-TREATMENT COMPARISON TO ASSESS THE COST-EFFECTIVENESS OF OZURDEX® (DEXAMETHASONE INTRAVITREAL IMPLANT IN APPLICATOR) COMPARED WITH BEVACIZUMAB INTRAVITREAL INJECTIONS FOR PATIENTS WITH MACULAR OEDEMA FOLLOWING BRANCH RETINAL VEIN OCCLUSION

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OBJECTIVES: Ozurdex (dexamethasone 700 μg intravitreal implant in applicator) was the first licensed pharmacotherapy for macular oedema following branch retinal vein occlusion (BRVO) in the UK; however unlicenced use of Bevacizumab given by intravitreal injection was considered a potential comparator for economic evaluation. No head to head RCTs exist to compare outcomes; a mixed treatment comparison (MTC) was performed to synthesise available data. **METHODS:** A lifetime cost-utility model was produced with a treatment period of up to 3 years. Patients received an average of 9.96 bevacizumab or 2.24 Ozurdex treatments, 75% of which were costed based on a day case setting. Efficacy was measured in terms of letters gained on the Early Treatment of Diabetic Retinopathy Study (ETDRS) chart. This was estimated from an MTC where the network of evidence included comparisons of Ozurdex versus observation, observation versus grid laser and grid laser versus bevacizumab. QALYs were calculated from the letters gained using a coefficient obtained from regression analysis predicting the Visual Function Questionnaire Utility Index (VFQ-UI) score from BCVA. Differences in AE profiles were accounted for within the analysis. **RESULTS:** The day 180 results of the MTC indicated a difference (p=ns) in BCVA of 1.74 letters (95% CI -9.57 to 6.19) favouring bevacizumab; MTC Results at day 60 show this trend to be reversed. The analysis also demonstrated that an Ozurdex based regimen is less costly than a bevacizumab regimen making the ICER difficult to interpret. Therefore net monetary benefit (NMB) was calculated to demonstrate an NMB of Ozurdex vs. bevacizumab (based on day 180 results) of £2,228 at a willingness to pay per QALY of £20,000, robust to sensitivity analyses. **CONCLUSIONS:** The results of this analysis indicate that Ozurdex is a cost-effective treatment for macular oedema following BRVO when compared with bevacizumab, from a UK NHS perspective.

PSS27

WE TREAT EYES, NOT PEOPLE: THE SYSTEMATIC OVERESTIMATIONS OF UTILITY IN AGE-RELATED MACULAR DEGENERATION MODELS

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OBJECTIVES: Cost-effectiveness models in age-related macular degeneration use the utilities based on the better-seeing eye, because this mainly influence quality of life. Most models use the utility as if we only treat better-seeing eyes, although in trials the majority of the treated eyes are the poorer-seeing eyes. This discrepancy results in overestimating the QALY. Therefore a correction should be applied. The objective of this study is to estimate the influence on the (incremental) cost-effec-